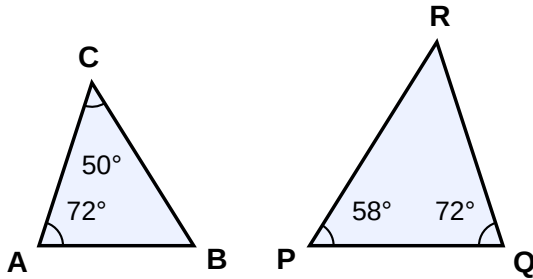


Angles and the AA test

Find the missing angle in each triangle. Then decide: are the triangles similar?

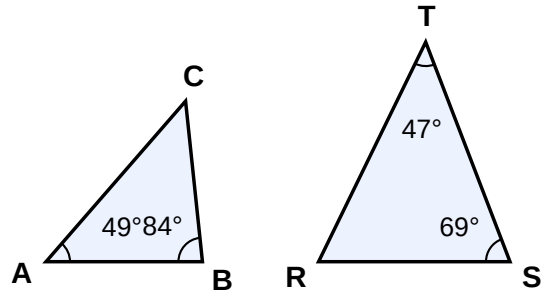
1.



$$m\angle B = \underline{\hspace{2cm}}^\circ \quad m\angle R = \underline{\hspace{2cm}}^\circ$$

Similar?

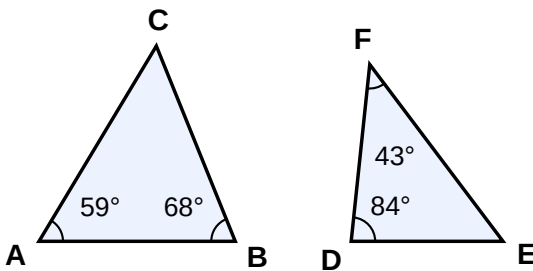
2.



$$m\angle C = \underline{\hspace{2cm}}^\circ \quad m\angle R = \underline{\hspace{2cm}}^\circ$$

Similar?

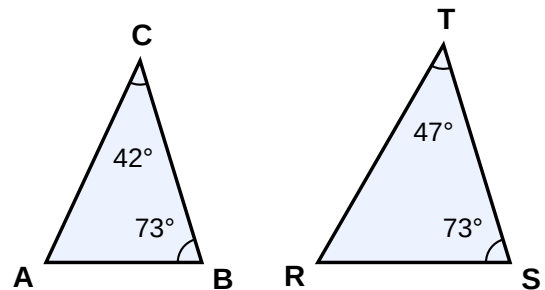
3.



$$m\angle C = \underline{\hspace{2cm}}^\circ \quad m\angle E = \underline{\hspace{2cm}}^\circ$$

Similar?

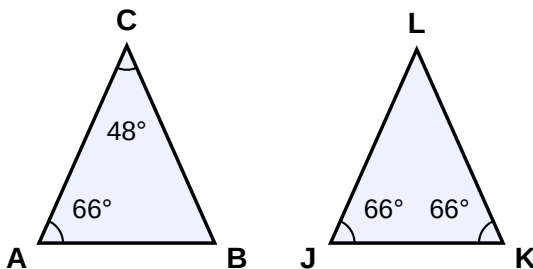
4.



$$m\angle A = \underline{\hspace{2cm}}^\circ \quad m\angle R = \underline{\hspace{2cm}}^\circ$$

Similar?

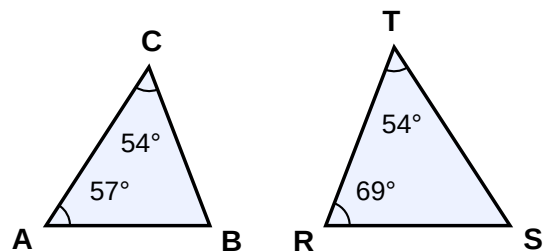
5.



$$m\angle B = \underline{\hspace{2cm}}^\circ \quad m\angle L = \underline{\hspace{2cm}}^\circ$$

Similar?

6.



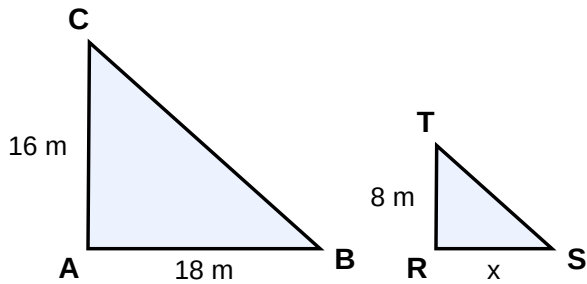
$$m\angle B = \underline{\hspace{2cm}}^\circ \quad m\angle S = \underline{\hspace{2cm}}^\circ$$

Similar?

Find a missing side

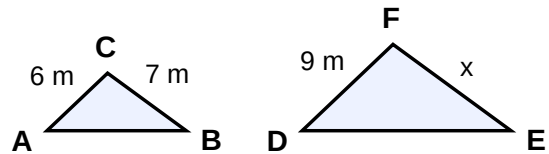
The triangles are similar. Match up the sides, then find x .

1. Triangle ABC ~ triangle RST. Find x .



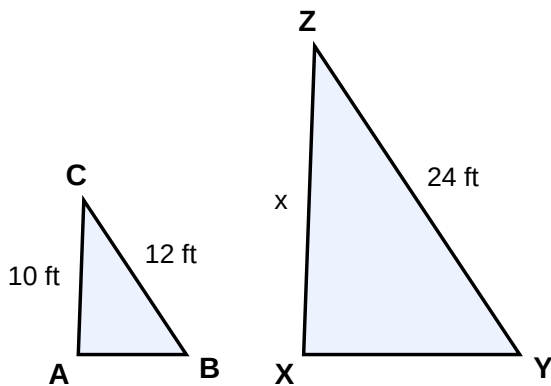
$x = \underline{\hspace{2cm}}$ m

2. Triangle ABC ~ triangle DEF. Find x .



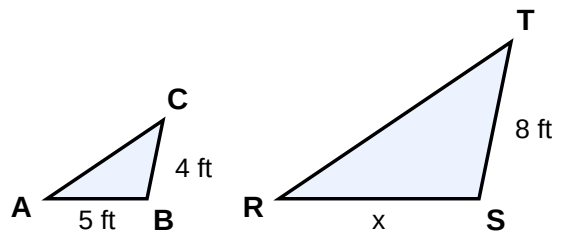
$x = \underline{\hspace{2cm}}$ m

3. Triangle ABC ~ triangle XYZ. Find x .



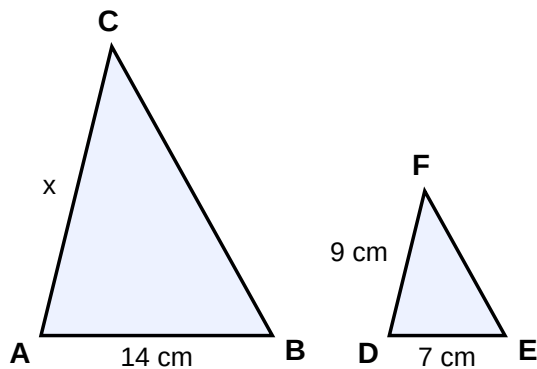
$x = \underline{\hspace{2cm}}$ ft

4. Triangle ABC ~ triangle RST. Find x .



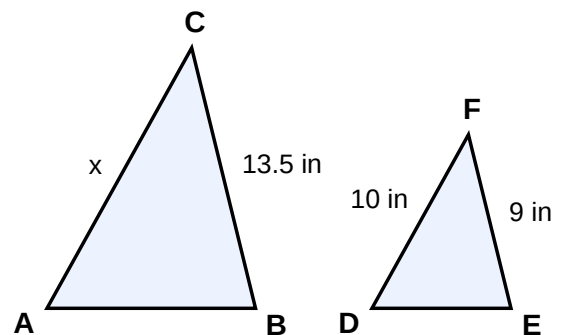
$x = \underline{\hspace{2cm}}$ ft

5. Triangle ABC ~ triangle DEF. Find x .



$x = \underline{\hspace{2cm}}$ cm

6. Triangle ABC ~ triangle DEF. Find x .



$x = \underline{\hspace{2cm}}$ in

Shadow problems

An object and its shadow form a right triangle. At the same time of day these triangles are similar, so set up a proportion and solve.

1. At the same time of day, a lamppost casts a 6-foot shadow and a 10-foot basketball hoop casts a 5-foot shadow. How tall is the lamppost?
2. A 10-foot basketball hoop casts a 5-foot shadow. At the same time, how long is the shadow of a 14-foot giraffe?

Height = _____ ft

Shadow = _____ ft

3. A person who is 6 feet tall casts a 4-foot shadow. At the same time, how long is the shadow of a 12-foot tree?
4. A 10-foot basketball hoop casts a 6-foot shadow. At the same time, how long is the shadow of a 55-foot water tower?

Shadow = _____ ft

Shadow = _____ ft

5. At the same time of day, a giraffe casts a 8-foot shadow and a 10-foot basketball hoop casts a 5-foot shadow. How tall is the giraffe?
6. At the same time of day, a giraffe casts a 9-foot shadow and a 10-foot basketball hoop casts a 6-foot shadow. How tall is the giraffe?

Height = _____ ft

Height = _____ ft